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REMARKS/ARGUMENTS

Favorable consideration of this application is respectfully requested. Applicant has amended claims 1, 5, 7, 8, 10-16 and 18, canceled claims 4, 6, 7, 9 and 17 and added new claims 19 and 20. Favorable reconsideration of this application is, consequently, earnestly solicited in view of the following remarks. Applicant thanks Examiners Jeanne DiGrazio and Andrew Schechter for the interview on January 17, 2006 to discuss amendment to the claims to put them in condition for allowance or alternatively, remove the finality of the action and making a non-final rejection. No new issues or considerations are being raised.

During the telephone interview Examiner Di Grazio remained silent. Amended claim 1 was the subject of the discussion. Examiner Schechter objected to the terminology used in the claim to describe the arrangement of the first common electrode, second common electrode and pixels electrodes within the LCD. The objected to terminology includes the terms "discontinuous" and "continuous". As a basis for the objection to the terminology, Examiner Schechter referenced Fig. 9 of Matsuyama which shows a front view of the LCD shown in the cross-sectional view of Fig. 10.

In the front view, the "discontinuous" electrodes appear as spaced apart branches of "continuous" electrodes. Examiner Schechter suggested replacing the term "discontinuous" with the term "segmented". Examiner Schechter refused to address the other differences between Matsuyama and claim 1. Instead, he objected to the fact that the subject application failed to provide front view drawings corresponding to the cross sectional views submitted with the original application.

All attempts to redirect the interview back to the Fig. 2 cross section view of the subject application with the cross sectional views in Figs 4 and 10 of the Matsuyama patent failed. Examiner Schechter refused to discuss cross sectional views. Following the discussion with Examiners DiGrazio and Schechter, Applicant was notified that all future communication in regard to amendment of the claims should be directed to Schechter. Examiner Di Grazio also identified col. 18, lines 15-35 as a basis for the rejection of the added limitation wherein the voltage applied to the first common electrode is different than the voltage applied to the second common electrode.

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First, prior to the telephone interview, Applicant had not received a section 112 rejection to the terms "discontinuous" and "continuous" as used throughout the specification and the claims. The terms are clearly defined in the specification of the subject application. The term "continuous" is defined on page 1, lines 21-22 as extending to all pixels of the whole display. An electrode may be termed "discontinuous" by design and is collectively referred to as one layer (page 7, lines 19-20). Examiner Schechter indicated that he would not allow claims that included the terminology. Since this action is FINAL, and the section 112 objection of the terminology "discontinuous" and "continuous" was not previously raised in an office communication, the objection is a new basis for rejection. Therefore, the Examiner is required to provide a non-final action describing the new basis for the objection of the claim terminology to allow Applicant with an opportunity to overcome the objection.

Changing the terminology used in the claims in response to a final rejection that does not include an objection to the terminology may be considered non-responsive. Alternatively, an amendment using "new" terminology may be determined to contain new matter and the Examiner may not enter the amendment. Therefore, the terminology used in the original specification and claims is used in the amended claims in response to the final action.

Second, the rejection of claim 1 was based on Fig. 4 in combination with Fig. 10. Both figures are cross section views which were used by Examiner Di Grazio in the final office action to reject claims 1-3, 5 and 11-12. Since Examiner Schechter is relying on Fig. 9 as the basis for his rejection and Fig. 9 was not identified in a previous office action, Examiner is required to provide a non-final action specifically pointing out the basis of the rejection of the claims based on Fig. 9.

Because Examiner Di Grazio rejected the claims on the basis of Figs. 4 and 10, and not Fig. 9, this response includes remarks and arguments directed to the basis of the rejection.

Third, in regard to the different voltage limitation, col. 18, lines 15-35 merely discloses that the voltages applied to the first and second common electrodes should be constant values, not changing values. Since the cited lines describe the voltages applied to the common electrodes shown in Fig. 4, col. 17, lines 17-27 discloses what the voltage

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should be. Lines 22-25 give an example of applying 0 volts to each of the first and second common electrodes. The voltage difference is between the pixel electrode and each of the first and second common electrode, thus the same voltage is applied to the first and second common electrodes.

The final action referred to Fig. 4 in regard to the voltages applied to the electrodes, therefore, the voltages disclosed in col. 17 lines 17-27 are used to compare Matsuyama with the subject application in response to the rejection.

Claim Rejections 35 U.S.C. §103(a):

Claims 1, 2, 3, 5 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over United States Patent 6,469,765 B1 (Matsuyama) filed on June 13, 2000.

Matsuyama (col. 17, lines 17-21 and Fig. 4) discloses a first common electrode (500) that is continuous and a second common electrode (400) that is also continuous, unlike the subject application wherein the second common electrode (23, 53, , 62, 71 and 92) is discontinuous (Figures 2-7 and 9). The term "continuous" is defined on page 1, lines 21-22 as extending to all pixels of the whole display. An electrode may be termed "discontinuous" by design and is collectively referred to as one layer (page 7, lines 19-20).

In the final action, Examiner alleges that Matsuyama Fig. 4 discloses the limitations of previously amended claim 1 except the discontinuous second common electrode to which Examiner refers to Fig. 10 of Matsuyama. Fig. 10 discloses a discontinuous pixel electrode and a discontinuous common electrode. No such limitation exists in previously amended claim 1. Instead, the common electrode is discontinuous and the pixel electrode can be continuous (Fig. 2) or discontinuous (Fig. 7). Examiner has combined two different Matsuyama embodiments (Figs. 4 and 10) to produce the claimed configuration without specifically pointing out a teaching to combine the two embodiments. Matsuyama includes plural embodiments, a first embodiment (Figs. 1-6), a second embodiment (Figs. 7-8), a third embodiment (Figs. 9-10), and a fourth embodiment (Figs. 11-13). None of the embodiments included the limitation suggested

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by the Examiner in the combination of the first and third embodiments shown in Figs. 4 and 10.

Examiner cannot pick pieces of one embodiment (Fig. 4) and combine them with a different embodiment (Fig. 10) for the purpose of producing the LCD claimed in claims 1-12 of the subject application without specifically pointing out a teaching in the prior art to make the suggested combination. Matsuyama does not teach a continuous first common electrode and a discontinuous second common electrode in combination with a continuous pixel electrode as shown in Fig. 4 and claimed in claim 1.

In regard to the voltages applied to the electrodes, Matsuyama discloses applying the same voltage to the first common electrode and the second common electrode (col. 17, lincs 17-27) and that the voltage is constant, not varying (col. 18, lincs 15-35). Claim 1 has been further amended to clarify that the voltage applied to the continuous first and the discontinuous second common electrodes are different. Applying the voltages pointed out by Examiner to the electrode configuration claimed in claim 1 would produce an inoperable display. A combination that creates an inoperable reference teaches away from the combination.

Applicant has amended claim 1 to clarify that the discontinuous second common electrode layer includes plural second common electrodes having a gap between adjacent second common electrodes as disclosed on page 7 lines 19-20 and shown in Fig. 2. Applicant has further amended claim 1 to claim the subject matter shown in Fig. 2-5 and 9 wherein the pixel electrode is continuous. Applicant has further amended claim 1 to clarify that the voltage applied to the first and second common electrodes are different. For the reasons provided, Applicant believes that claim 1 is allowable over Matsuyama, thus removal of the rejection is requested.

In regard to claim 2, Applicant agrees with Examiner that the pixel electrode and the second common electrode in Matsuyama and the subject application are separated by a insulation layer. However, since claim 2 depends from amended claim 1, for the reason provided in regard to claim 1, Applicant believes that claim 2 is allowable and requests removal of the rejection.

In regard to claims 3 and 5, in Matsuyama the voltage applied to the electrodes in the first embodiment is different from the voltages applied to the electrodes in the fourth

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embodiment. In fact, the difference in voltages applied to the electrodes is determined by the configuration of the electrodes. Since Matsuyama does not provide an embodiment combining the configurations in shown in Figs. 4 and 10, likewise, Matsuyama does not disclose voltages that would be applied to electrodes having the configuration claimed in claims 3 and 5.

Examiner has cited the voltages applied to the first embodiment (Fig. 4) of Matsuyama as the basis of the rejection. However, the configuration of the electrodes shown in Matsuyama Fig. 4 are not the same configuration claimed in claims 3 and 5. The basis of the rejection of claims 3-5 is not consistent with the basis for the rejection of claim 1 and therefore the rejection is improper. Examiner is required to specifically point out the basis for the rejection. Since Examiner basis for rejecting claims 3 and 5 is the voltages applied to the first embodiment shown in Fig. 4, and the basis for the rejection of claim 1 is a combination of the configurations shown in Figs. 4 and 10, the basis cannot be used to reject claims 3 and 5 because the voltages do not apply to the combined Matsuyama embodiments.

Furthermore, claims 7 and 8 of the subject application were not rejected and the claims clearly recite applying different voltages to the first and the second common electrodes. Claim 5 has been amended to correspond with amended claim 1 wherein the pixel electrode is continuous. For these reasons, and the reasons provided in regard to claim 1, Applicant believes that claims 3 and 5 are allowable and requests removal of the rejection.

In regard to claims 11 and 12, Examiner alleges that Matsuyama teaches the vertical and non-vertical electric fields. Again, Examiner's allegation is not supported by Matsuyama. Instead, Examiner continues to point out the electric fields generated by application of specific voltages (col. 17, lines 17-17) to electrodes having the configuration shown in Fig. 4. Claims 11 and 12 depend from base claim 1 which is not shown in Fig. 4 of Matsuyama. Examiner improperly based the rejection of claim 1 on the combination of the first embodiment and third embodiment shown in Figs. 4 and 10.

Matsuyama does not teach or suggest the electrode configuration claimed in base claim 1 and Examiner has failed to specifically point out a teaching to combine the embodiments. Furthermore, since Matsuyama does not teach or suggest the configuration

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claimed in claim 1, Matsuyama does not teach the voltages that would be applied to electrodes having such a configuration or the electric field that would be generated by application of the voltages claimed in claim 3.

Examiner has rejected claims 11 and 12 on the basis of the electric fields that would be generated in the first embodiment and the electrode configuration of claims 11 and 12 is not the configuration shown in Fig. 4 of Matsuyama. Furthermore, claims 7 and 8 of the subject application were not rejected and the claims clearly recite applying different voltages to the first and the second common electrodes which are not the voltages applied in Fig. 4 of Matsuyama. For the reasons provided, and the reasons provided in regard to claims 1, 2, 3 and 5, Applicant believes that claims 11 and 12 are allowable under section 103(a) and requests removal of the rejection.

Claims 7 and 8 were not rejected and are therefore considered allowable.

Claims 10, 13 and 18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuyama in view of Nakanishi. Examiner acknowledges that Matsuyama does not teach a dielectric layer adjacent to a common electrode and has combined Nakanishi to provide the missing dielectric layer. Applicant agrees that Nakanishi discloses use of a dielectric layer adjacent to a common electrode layer.

In regard to claim 10, a combination including Nakanishi fails to overcome the deficiencies in the Matsuyama reference. Since claim 10 depends from base claim 1, for the reasons provided in regard to claim 1, applicant believes that claim 10 is allowable and requests removal of the rejection.

In regard to claims 13-18, Applicant has amended claim 13 to clarify that the first common electrode is continuous and that the second common electrode layer is discontinuous. Claim 13 has been further amended to add the limitation of applying a first voltage to the continuous first common electrodes and applying a different voltage to the discontinuous second common electrode. Claims 7 and 8 claimed different voltage applied to the first and second common electrodes. Claims 7 and 8 were not rejected. For the reason provided and the reasons provided in regard to claim 1, Applicant believes that amended claim 13 is allowable over the cited references.

Claim 14 has been previously amended to further clarify that the pixel electrode layer is continuous. Nakanishi discloses a liquid crystal display having a resistive

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insulating layer (26A) between the bottom common electrode (23A) and the pixel electrode (25A), however, the pixel electrode is not continuous. For this reason, Applicant believes that claim 14, as amended, overcomes the rejection and requests removal of the rejection.

Claim 15 has been amended to claim the subject matter shown in Figs. 4, 7 and 9 wherein the voltage applied to the pixel electrode is not equal to the second voltage applied to the discontinuous second common electrode.

In regard to claim 16, Applicant has amended claims 16 to clarify that the pixel electrode and the second common electrode are discontinuous and that the discontinuous pixel and second common electrodes are alternating electrodes as shown in Fig. 7 and described on page 10, lines 14-24. Claim 16 has been further amended to clarify that the discontinuous pixel and second common electrode are adjacent to the liquid crystal layer and that the voltage applied to the discontinuous pixel and discontinuous second common electrodes are equal to form an electric field between the pixel electrode and the second common electrode. For these reasons, and the reasons provided in regard to base claim 13, Applicant believes that amended claim 16 overcomes the rejection and requests removal of the rejection.

Claim 17 has been canceled.

In regard to claim 18, has been amended to clarify that the voltage applied to the pixel electrode depends on the input data. For the reasons provided in regard to claim 13, Applicant believes that claim 18 is allowable under section 103(a) and requests removal of the rejection.

New claims 19 and 20 have been added to claim the subject matter shown in Fig. 7 of the subject application wherein the pixel electrode layer and the second common electrode layer are discontinuous and have plural spaced apart pixel electrodes and plural spaced apart second common electrodes, respectively. Claim 19 further recites that the plural pixel electrodes and plural second common electrodes are alternately located in the same plane. Because neither Matsuyama nor Nakanishi disclose a LCD having alternating discontinuous pixel and second common electrodes located in the same plane, New claims 19-20 claim the subject matter previously claimed base claims 1 and 13 of

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the original application and in previously amended basic claim 13 and dependent claim 16. Applicant believes that claims 19 and 20 are allowable.

In view of the foregoing considerations, it is respectfully urged that claims 1-3, 5, 7, 8, and 10-16 and 18-20 be allowed or alternatively, remove the finality of the action and making a non-final rejection. No new issues or considerations are being raised. Such action is respectfully requested. If the Examiner believes that an interview would be helpful, the Examiner is requested to contact the attorney at the below listed number.

Respectfully Submitted;



Brian S. Steinberger
Registration No. 36,423
101 Brevard Avenue
Cocoa, Florida 32922
Telephone: (321) 633-5080

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